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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,684	11/15/2001	Hisashi Kashima	JP9-2000-0253	2580
30743	7590	08/01/2005	EXAMINER	
WHITHAM, CURTIS & CHRISTOFFERSON, P.C. 11491 SUNSET HILLS ROAD SUITE 340 RESTON, VA 20190			SUBRAMANIAN, NARAYANSWAMY	
			ART UNIT	PAPER NUMBER
			3624	

DATE MAILED: 08/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/003,684

Applicant(s)

KASHIMA ET AL.

Examiner

Narayanswamy Subramanian

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 7-12, 19-24 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 13-18, 25 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) \_\_\_\_\_
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This office action is in response to applicants' communications filed on April 8, 2005. Claims 1-27 are pending in the application. Election of claims 1-6, 13-18, 25 and 27 without traverse by the Applicants is acknowledged. Accordingly claims 7-12, 19-24 and 26 are withdrawn from consideration as being drawn to the non-elected group. Applicants in replying to this office action are respectfully advised to cancel the non-elected claims. Elected claims 1-6, 13-18, 25 and 27 have been examined. The objections and rejections are stated below.

#### *Drawings*

2. The drawings submitted by the Applicants are objected to by the Examiner. Specifically figures 1, 6 and 7 are not legible. When the application is allowed, applicant will be required to submit replacement sheets for the drawings.

#### *Claim Rejections - 35 USC § 101*

3. 35 U.S.C. § 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title".

4. Claims 1-6 and 27 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

35 USC 101 requires that in order to be patentable the invention must be a "new and useful process, machine, manufacture, *or* composition of matter, *or* any new and useful improvement thereof" (emphasis added).

Claims 1-6 and 27 are rejected under 35 U.S.C. § 101 because; the claimed invention is directed to a non-statutory subject matter. Specifically the method claims as presented do not

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claim a technological basis in the pre-amble and the body of the claim. Without a claimed basis, the claim may be interpreted in an alternative as involving no more than a manipulation of an abstract idea and therefore non-statutory under 35 U.S.C. 101. In contrast, a method claim that includes in the body of the claim structural / functional interrelationship which can only be computer implemented is considered to have a technological basis [See Ex parte Bowman, 61 USPQ2d 1669, 1671 (Bd. Pat. App. & Inter. 2001) - used only for content and reasoning since not precedential].

In order to over come the 101 rejection above, the following preamble is suggested:

“A computer implemented auction method for ---” or something similar. Also, in the body of the claim include structural / functional interrelationship which can only be computer implemented.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-6, 13-18, 25 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 13-18 recite the limitation “auction system”. However it is not clear if by the term “system” the Applicants mean a “method” or an “apparatus”.

Appropriate clarification is required.

Claims 1-6 and 27 recite in the preamble “An auction method for holding an auction for a product”, however it is not clear how the auction is actually held. The steps in the method recite receiving bids and generating a bid set and subset of bids. It is not clear as to what happens to the subset of bids after their generation or how the auction process is consummated. Since the claim

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does not set forth any steps involved in the holding of an auction, it is unclear what method applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Similarly claims 13-18 and 25 recite in the preamble "An auction system/computer-readable storage medium for holding an auction for a product", however it is not clear how the auction is actually held. The steps in the claim recite receiving bids and generating a bid set and subset of bids. It is not clear as to what happens to the subset of bids after their generation. Since the claim does not set forth any steps involved in the holding of an auction, it is unclear what system/computer-readable storage medium applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

In independent claims 1, 13, 25 and 27 the limitation "the maximum gain is obtained within a range represented by the count of said product available for sale" has no antecedent basis. Dependent claims are rejected because they depend on rejected independent claims.

In claims 3-6 and 15-17, it is not clear what the term  $V(k,j)$  means or represents. Clarification is required. In claims 5, 6, 17 and 18, it is not clear what the arrays  $V$  and  $Q$  represent. The term  $Q(k,j)$  is also not clear. Clarification is required.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject

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matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6, 13-18, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dietrich (US Patent 2003/0018560 A1).

With reference to claims 1, 13, 25 and 27, Dietrich discloses a method, system and a computer-readable storage medium on which a program for holding an auction for a product is stored, the method comprising receiving bids, for each product type in a transaction, that include minimum desired volumes and maximum desired volumes and evaluation prices for said product (See Dietrich paragraphs 23 and 27); generating a finite set of bids that include as an element said bids that were received (See Dietrich paragraph 37).

Dietrich does not explicitly disclose the step of employing dynamic programming to generate, using said bid set, a subset of bids wherein the maximum gain is obtained within a range represented by the count of said product available for sale.

Applicant's discussion of related art discloses the step of employing dynamic programming to generate, using said bid set, a subset of bids wherein the maximum gain is obtained within a range represented by the count of said product available for sale (Applicant's discussion of related art pages 2-5).

Both Dietrich and related art discussed by the applicant use operations management tool like programming (Integer, Dynamic etc) to generate an optimal solution. It would have been obvious to one of ordinary skill in the art at the time of invention to include the disclosures of related art to the invention of Dietrich. The combination of disclosures would have helped the user to generate an optimum solution in a timely and cost efficient manner.

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With reference to claims 2 and 14, Dietrich discloses the step wherein evaluation prices for said product are represented as a non-linear function relative to the desired volume of said product type in said transaction (See Dietrich paragraph 28). Non-linear constraints are interpreted to include this feature.

With reference to claims 3, 5, 15 and 17, Applicant's discussion of related art discloses the steps of this claim (Applicant's discussion of related art pages 2-5). Using multidimensional arrays in memory to solve mathematical problems are old and well known in the art of software programming.

With reference to claims 4, 6, 16 and 18, the step wherein a bid according to which said product is optimally distributed is selected by back tracking of said two-dimensional array V from the element on the smallest row and in the smallest column is old and well known. In dynamic programming the step of back tracking to arrive at an optimal solution is an application of the Bellman principle that is well known to those familiar with the art. Using multidimensional arrays in memory to solve mathematical problems, and the choice of appropriate rows and columns to represent the problem are old and well known in the art of software programming. Proper choice of these variables would have helped the user to generate an optimum solution in a timely and cost efficient manner.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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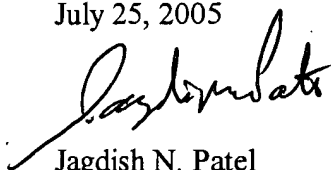
(a) Davenport et al (US Pub. No. 2003/0033236 A1) (February 13, 2003) Automatic Method for Generating a Mathematical Program to Identify an Optimal All-or-Nothing Bid set for Procurement-Related Reverse Auctions

(b) Li et al (US Pub. No. 2003/0004850 A1) (January 2, 2003) Auction Management

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Narayanswamy Subramanian whose telephone number is (571) 272-6751. The examiner can normally be reached Monday-Thursday from 8:30 AM to 7:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached at (571) 272-6747. The fax number for Formal or Official faxes and Draft to the Patent Office is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

N. Subramanian  
July 25, 2005



Jagdish N. Patel  
Primary Examiner